

# 2002 Dental Waste Management Survey Results

On November 1, 2002, the **Albuquerque District Dental Society** members were mailed surveys by the City of Albuquerque's Wastewater Utility Division's Pollution Prevention (p2) Program. ADDS Members are surveyed biannually in cooperation with the City. The effort was a success, thanks to the support of ADDS and their members. Of a total of 270 surveys mailed, 125 dentists representing 99 offices responded to the survey. Thanks go out to all who responded in this year's survey. Results are tabulated below.



Goals of the p2 dental program:

- To provide educational materials to dental offices.
- To encourage voluntary reductions in the discharge of silver, amalgam, solvents and other wastes to the City Southside Water Reclamation Plant
- To recognize dental offices for their voluntary compliance.
- To evaluate waste management practices in dental offices

The p2 Program and the ADDS have developed several documents that are useful to dental offices:

- *Pollution Prevention Guidelines for Dental Offices*
- *Resource List for Dental Offices*
- *Dental Waste Management Poster*
- *Dental Survey Form*
- *Dental Office Self Grading Matrix*



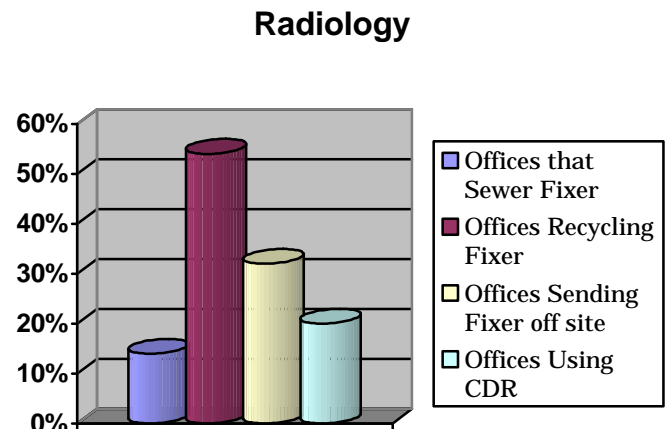
## Survey Results

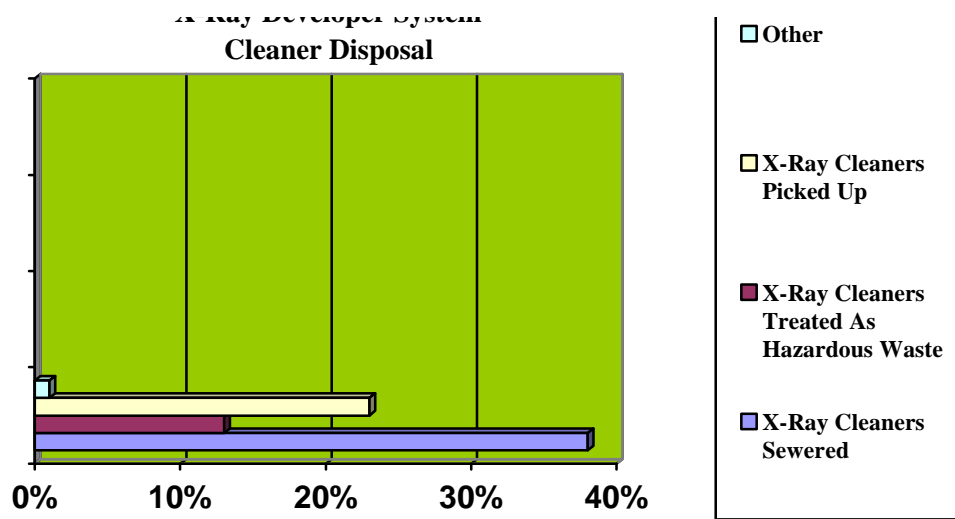
The dental survey primarily focused on the management of wastes from radiography and amalgam work. Dental offices are small generators of wastes that are hazardous and non-hazardous **yet every business can make a difference in helping to preserve the Rio Grande and Albuquerque's ecosystem.**

## Radiology Results

- 86 of the dentists surveyed develop X-Rays
- 20 of the dental offices are using Computed Dental Radiology (CDR.)
- 65 Offices use automated processors
- 12 Offices use dip tanks
- Dental Offices use an average of 1 to 2 gallons per month of fixer.

*It is assumed that Dental Offices sending spent fixer off site are recycling or disposing of the spent fixer as hazardous waste.*





## Lead Foil

- 33 Dental Offices Recycle lead foil.
- Other offices dispose of lead foil as:



- Trash
- Medical Waste
- Hazardous Waste
- Return to Supplier

## Amalgam

- 93 Dental Offices use amalgam, 11 do not
- Dental Offices report plans to phase out new fillings amalgam use
- 61 Dental Offices dispose of scrap amalgam and amalgam in trap filters as **medical waste**

- 31 offices recycle their trap filters and scrap amalgam
- Other dental offices manage their amalgam in another way (sewer, trash or not specified)



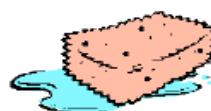
## Composites

The survey indicated that **78 Offices use composites:**

- 23 dental offices use composites 50% of the time (*most percentage of use*)
- 12 dental offices use composite 10% of the time (*least percentage of use*)

## Spill Control and Emergency Response

- 41 Offices have written Spill Control Plans
- 36 Offices have mercury spill kits on site.



## Solvents or Sterilants ?

The wording of this question on the survey may have lead to confusion as most of

the answers included **sterilants** and **not solvents**. The p2 Program considers the following items **solvents**: straight alcohol, ether, acetone, xylol, chloroform. Answers included the following, V-Cide, developer, ultrasonic saline, peroxide base sterilizer, Binex disinfectant, cidex, VapoSteril, and Procide. For the purpose of the survey, we have included the constituents that Dentists listed on the survey:

- The **average** solvent or sterilants that Dental Offices use: 1 gallon/month
- 31 offices discharge solvents/sterilants to the sewer
- 61 Dental Offices DO NOT USE Solvents
- 50 of the offices that use gluteraldehyde dispose of it to the sewer
- Average gluteraldehyde used at offices: 1 gallon/month

#### Past Survey Comparisons:

- In 1999, 12% of dental offices were using CDR, in 2002 the percentage is 20%
- In 1999, 33% of dental offices sewered their spent fixer, in 2002 the amount dropped to 14%
- In 1999, 18% of dental offices used composites 50% of the time, in 2002, 29% of offices use composites 50% of the time.

#### Opportunities for Improvement

- The p2 Program encourages all Albuquerque dental offices to voluntarily recycle or treat their spent x-ray fixer before sewerage. Used x-ray fixer may contain hundreds to several thousand parts per million of silver.
- Dentists should find out if chromium is present in their x-ray machine cleaners by referring to MSDS sheets or asking their suppliers. If your office is using chromium cleaners, non-chromium alternatives commercially available can be sewered after cleaning.

Other practices that the p2 Program advocates are

- Recycling of lead foil
- Recycling scrap and trap amalgam
- Having a mercury spill kit available
- Having a written Spill Control Plan posted
- Not pouring flammable, such as, alcohol down the drain.

The p2 Program would like to **thank the Albuquerque District Dental Society** members for their cooperation and interest in preserving the City of Albuquerque's environment. Additional educational material and workshops are planned for 2003.

